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Tackling Energy Security

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Threats—natural and deliberate—continue to highlight the vulnerability of our nation's energy infrastructure. A large-scale terrorist attack or natural disaster could affect the stability of the energy system and, consequently, a state's economy. But, even a *minor* blip in the power supply can have overwhelming effects. According to a study by the Electric Power Research Institute in 2001, several companies faced a substantial financial drain from short disruptions in power. The study explained that an electricity outage of even less than one second could cause considerable economic loss for technology- and electricity-dependent organizations. Industrial and digital economy firms lose more than $45 billion a year due to power outages. It is important for state officials to know what they can do to establish a more secure, reliable energy system.

Federal Action

The Department of Homeland Security (DHS) developed the first iteration of the National Infrastructure Protection Plan. The interim plan describes the leadership of the DHS to integrate activities to protect critical infrastructure and key resources across sectors (energy, transportation, etc.). The roles and responsibilities of each agency, e.g., Energy Department, are outlined in this initial version of the plan.

State Action

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In March 2005, Utah passed a bill establishing the requirements for an energy emergency plan, protecting emergency-related records, and modifying the process for the governor when declaring a state of energy emergency. Many states have plans to protect the energy system, respond to emergencies, and manage fuel shortages. An energy emergency plan should consider all kinds of threats and consequences from terrorist attacks, severe weather, pipeline failures and natural gas shortages. The plan should address not only the effects on critical facilities, but also the connections and interdependencies between critical facilities. A comprehensive energy preparedness plan can help a state combine all aspects of the energy system planning, protection and emergency response. At a minimum, the plan should involve the following elements:

1. Identify the state's energy profile. The state's energy profile refers to the fuels used within a state, and the origins, amounts and import/export routes of these fuels. The energy profile also includes the energy facilities and their capacities, as well as the volumes that flow through them.

2. Determine the state's essential energy facilities and their connections. Essential energy facilities might include electric power plants, transmission and distribution facilities; natural gas wells, pipelines and storage; and petroleum production, distribution, storage, refining facilities and pipelines.

3. Evaluate the potential threats and the possible consequences of disruptive events. There are four categories of threat, including: 1) deliberate attacks; 2) natural disasters; 3) accidental failure; or 4) systemic threats (inability of energy delivery systems to meet demand). The consequences of a disastrous event can have a trickle-down effect.

4. Review long-term strategies, and do not overlook low-cost quick fixes. Long-term strategies might include incorporating security, reliability and redundancy into the energy system. Reduce vulnerabilities by: 1) increasing security at energy-producing facilities to inhibit attacks; or 2) installing backup power generation at critical facilities.

5. Outline a strategy for communications to the media and the public. Any significant event will require a consistent and timely public message on what occurred and what is being done.

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6. Offer several response options for each type of emergency. Every emergency is different, so the same set of detailed action plans will not resolve every problem. Various flexible response options for each type of emergency should be considered.

7. Avoid including sensitive information in the plan. To prevent the unintended release of information that might expose vulnerabilities, store specific, detailed, and secure or sensitive information outside of the energy emergency plan for use by authorized officials only.

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8. Identify the response measures and options that industry and government can take. Describe each measure and when it can be used, how quickly it can be implemented, the agencies and authorities involved, which budget should cover it, how to assess the impact (fiscal savings, social and economic), and how to evaluate its success.

State legislators can support the state agencies and organizations involved in energy security and ensure that those agencies consider the following actions:

State legislators can encourage communication among state agencies.

- Update the energy emergency or security plan regularly.
- Encourage communication among and between state agencies.
- Coordinate on a local, regional and federal level.
- Involve industry officials, first responders and private entities in all aspects of planning.
- Support energy alternatives, renewable energy and energy efficiency as ways to reduce the impacts of an electricity outage.
- Ensure the protection, from cyber attack, of computer control systems.
- Monitor the state's energy supply through the Energy Department's Energy Information Administration (www.eia.doe.gov).

Selected Reference

National Association of State Energy Officials and National Association of Regulatory Utility Commissioners. *State Energy Assurance Guidelines,* Version 1 Review, June 2004. http://www.naseo.org/committees/energysecurity/documents/energy_assurance_guidelines_v1.pdf.

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